

REMARKS

Claims 1-16 are currently pending in the application. Applicants wish to thank the

On page 2 of the Office Action, claims 1-3, 5-9, and 11-15 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over information in the background section of Applicants' specification (background info) in view of U.S. Patent No. 7092643 (Kajiya).

In at least one embodiment of the present invention, a first optical modulator is driven, in accordance with the drive signal having the repetition frequency equal to the bit rate of the signal light, and having the voltage magnitude corresponding to the voltage difference in the $n/2$ period in the periodic optical transmission characteristic of the first optical modulator. As a result, the first optical gate section functions as an optical switch that operates in accordance with the repetition frequency "n" times the bit rate of the signal light. Hence, the first optical gate section can be driven without requiring multiplication of a clock having a repetition frequency the same as the bit rate of the signal light. As a result, the configuration of the separating apparatus can be simplified, and the cost can be reduced. See specification of the present invention, page 5, line 26 – page 6, line 4.

Applicants respectfully submit that independent claims 1 and 12 are patentable over the references, as neither background info nor Kajiya, alone or in combination, discloses or suggests, "a drive signal having a repetition frequency equal to the bit rate of said signal light of the plurality of signal lights, and having the voltage magnitude corresponding to a voltage difference in an $n/2$ period in the periodic optical transmission characteristic of said first optical modulator," as recited in claim 1, for example.

On page 3 of the Office Action, the Examiner acknowledged that background info does not disclose a drive signal to a first modulator having a frequency equal to that of the bit rate of the signal light and having a voltage magnitude corresponding to a voltage difference in an $n/2$ period in the periodic optical transmission characteristic of the first optical modulator.

The Examiner, however, alleged that Kajiya discloses the feature. Applicants respectfully submit that although Kajiya discloses a driving signal, the driving signal in Kajiya is simply the same as a driving signal superimposed with a low-frequency signal that has been input into a Mach-Zehnder optical modulator and is modulated by a performance characteristic curve. See Kajiya, column 3, lines 55-59. Therefore, in contrast to the present invention, the driving signal in Kajiya does not have a repetition frequency equal to the bit rate of a signal light of a plurality of

signal lights and having a voltage magnitude corresponding to a voltage difference in an $n/2$ period in a periodic optical transmission characteristic of a first optical modulator. Hence, claims 1 and 12 are patentable over the references. As the pending dependent claims depend from respective independent claims, the pending dependent claims are patentable over the references for at least the reasons presented for the independent claims.

As Way fails to cure the deficiencies of the other cited references, claim 4, via claim 1, is patentable over the cited combination of references. As Kartalopoulos fails to cure the deficiencies of the other cited references, claim 10, via claim 1, is patentable over the references for at least the reasons presented for claim 1.

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

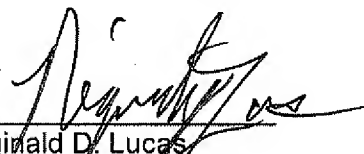
Respectfully submitted,

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12/18/07

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